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Modified Patent Claims

1. Use of at least one inhibitor of FGFR-4 for the treatment and/or prophylaxis of receptor tyrosine kinase (RTK)-hyperfunction-induced disorders, particularly cancer.

2. Use according to Claim 1, **characterised in that** the inhibitor is a kinase-inactive receptor.

3. Use according to Claim 1 or Claim 2, **characterised in that** an overexpression and/or altered activity of FGFR-4 is lowered and/or inhibited.

4. Use according to Claim 3, **characterised in that** the overexpression and/or altered activity of FGFR-4 is triggered by a mutation of the FGFR-4.

5. Use according to Claim 4, **characterised in that** the mutation is one or several point mutations.

6. Use according to Claim 5, **characterised in that** the mutation(s) occurs in the transmembrane domain of FGFR-4.

7. Use according to Claim 5 or Claim 6, **characterised in that** the mutation(s) leads to an exchange of a hydrophobic for a hydrophilic amino acid.

8. Use according to one of Claims 5 to 7, **characterised in that** the point mutation occurs at AA position 388 in the FGFR-4 molecule.

9. Use according to one or several of the foregoing Claims 5 to 8, **characterised in that** the point mutation at AA position 388 leads to an exchange of glycine for arginine (G388R).

10. Use according to one or several of the foregoing Claims, **characterised in that** the mutation(s) are germ line mutations.

11. Use according to one or several of the foregoing Claims for the treatment of cancer and/or disease attributable to hyperproliferation and/or invasion, particularly carcinomas, in particular by inhibition of metastasis formation.

12. Use according to one or several of the foregoing Claims for the treatment of breast cancer.

13. Use according to one or several of Claims 1 to 11 for the treatment of squamous cell carcinomas

14. Use according to one or several of Claims 1 to 11 for the treatment of glioblastomas.

15. Use according to one or several of Claims 1 to 11 for the treatment of neuroblastomas.

16. Use according to one or several of Claims 1 to 11 for the treatment of uterine cancer.

17. Use according to one of the foregoing Claims 1 to 16, **characterised in that** the inhibitor inhibits a mutated FGFR-4.

18. Mutated FGFR-4, which leads to overexpression and/or altered activity of the receptor in cells.

19. Mutated FGFR-4 according to Claim 18, **characterised in that** a hydrophobic amino acid in the wild type receptor has been exchanged for a hydrophilic amino acid in the mutated receptor.

20. Mutated FGFR-4 according to Claim 18 or 19, **characterised in that** the mutation is a point mutation and preferably occurs in the transmembrane domain.

21. Mutated FGFR-4 according to Claim 18, **characterised in that** the point mutation occurs at position 388, and preferably a glycine is replaced by arginine.

22. DNA molecule, containing a sequence which codes for a mutated FGFR-4 according to one of Claims 18 to 21.

23. RNA molecule, containing a sequence which codes for a mutated FGFR-4 according to one of Claims 18 to 21.

24. Use of the sequences according to one of Claims 22 and 23 in a diagnosis of diseases, particularly of cancer.

25. Use according to Claim 24, **characterised in that** the sequence can specifically detect the point mutation at position 388 of the FGFR-4.

26. Diagnostic procedure, in particular for the differential diagnosis of cancer, including the step of the detection of a mutated FGFR-4 protein or a nucleic acid coding therefor, in a case sample.

27. Diagnostic procedure according to Claim 26, **characterised in that** nucleic acid of the patient is brought into contact with a DNA and/or RNA, so that a signal is obtained which indicates the presence and/or absence of mutated FGFR-4, and/or nucleic acid of the patient is amplified and subsequently cleaved with a restriction enzyme whose recognition sequence is affected by the mutation and/or protein of the patient is brought into contact with an antibody which is specific for the mutated protein.

28. Procedure for screening for the presence of a genetic predisposition for the occurrence of cancer and/or other diseases including the step of the detection of a mutated FGFR-4 protein or a nucleic acid coding therefor, or an amplified FGFR-4 nucleic acid, in a case sample.

29. Pharmaceutical composition containing the inhibitor according to one or several of Claims 1 to 17.

30. Screening procedure for the identification of inhibitors of tyrosine kinase activity, wherein the receptor according to one of Claims 18 to 21 is brought into contact with potential inhibitors and the tyrosine kinase activity is determined in the presence and/or absence of the inhibitor.

31. Mutated FGFR-4, preferably according to one of Claims 18 to 21, as target in cancer therapy.

32. Antibody which reacts specifically with a mutated FGFR-4 protein according to one of Claims 18 to 21.

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